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ABSTRACT

The documents in this series provide educators in Saskatchewan with practical and relevant guides to teaching and learning as a means of expanding or refining teaching repertoires. This booklet explores focused imaging as a way to enhance student learning, describes the application of imagery to specific school curricula, and acts as a strategy teachers can use with students to help them learn more effectively and develop creativity by using their imaginations. The publication is organized into nine sections that provide explanation and exercises. The topics are: (1) a sample imaging experience; (2) What is focused imaging? (3) Why use focused imaging? (4) What does focused imaging look like? (5) What does focused imaging sound like; (6) preparing for focused imaging; (7) lesson planning; (8) teacher reflection; and (9) a focused imaging highlight sheet. Resource selections include general overviews of focused imaging, curriculum specific applications, script examples, background information, and starter ideas and inspiration. Appendices provide relaxation ideas, lesson plan samples, and a sample of script completion. (LL)

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F.Y.I.

FOR YOUR IMAGINATION

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Instructional Strategies Series No. 12

Saskatchewan Professional Development Unit • Saskatchewan Instructional Development and Research Unit

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Forward

Moving theory into practice, the documents in the Instructional Strategies series are written with experienced teachers in mind - professional people choosing to expand their own repertoires.

Working with an advisory committee of practising teachers and consultants, authors research and develop each topic thoroughly, distilling theory into practical applications. The resources listed in each document are provided for readers who want to delve deeper into the Strategy, further developing their teaching practices and philosophies of education.

These interactive documents are intended to leave readers with a feeling of "Yes, I can try this with my students!"

We hope you enjoy working with this resource. Your comments and suggestions are always appreciated.

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"A strategy is one's approach to a task"
—(Forrest, 1981)

For Your Imagination has benefited from the images of many educators.

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"And how about the colors, Frederick?"
they asked anxiously. "Close your eyes again,"
Frederick said. And when he told them
of the blue periwinkles,
the red poppies in the yellow wheat,
and the green leaves
of the berry bush,
they saw the colors as clearly
as if they had been painted
in their minds.

Leonni, Leo. (1967).
Frederick. Pantheon. New York.

"Close your eyes, " said Frederick,
as he climbed on a big stone.
"Now I send you the rays of sun.
Do you feel how their golden glow . . ."
And as Frederick spoke of the sun
the four little mice
began to feel warmer.
Was it Frederick's voice?
Was it magic?

Leonni, Leo. (1967).
Frederick. Pantheon. New York.

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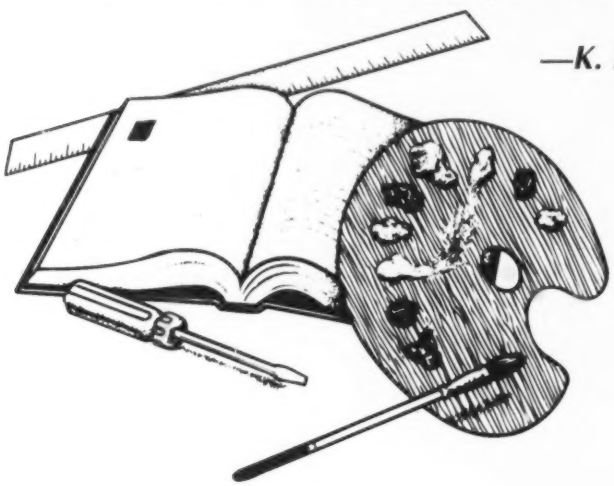
"We need for the educational benefit of children, to reconstruct our curricula and teaching methods in light of a richer image of the child as an imaginative as well as a logico-mathematical thinker.

What we call imagination is also a tool of learning...
perhaps the most energetic and powerful one."

—K. Egan, 1986



An invitation to explore Focused Imaging . . .

Please close your eyes and take ten relaxing deep breaths.

Open your eyes.

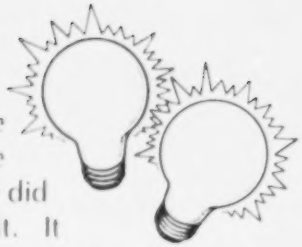
After reading the following paragraph, we invite you to close your eyes to savour the image.

Experience

> **"To imagine is everything."**
>
> *—Anatole France*

Picture a beautifully round orange . . . its skin pebbled and smooth . . . the smell as you first begin to peel it . . . it squirts out in every direction as your finger punctures the fruit . . . think of the taste as you begin to section the orange . . . that first bite!

Reflections & Connections



When you closed your eyes after reading the paragraph, perhaps you saw an image of an orange in full living color or as a faded image. Perhaps you did not see the orange as much as sense it or taste it. It might be that oranges are NOT a favourite of yours so the images you are left with may not be pleasant ones.

After reading about the orange:

I sensed

I felt

I saw

Reflections & Connections spaces will be found throughout FYI. We invite you to use them to record (in images or words) your experiences and ideas as you read through this document.

"Imagery is perception in the absence of an external stimulus that could have caused that perception."

—(Gordon, 1972)

Sense an orange with no orange.

Sandwiched between books on creativity, and books on memory and learning is the library's section on imaging, imagery, and visualization. A natural way of thinking, imaging is the creation of pictures in the mind. You may have experienced this as you read about the orange. This process has been used successfully in sports, the arts, counselling, the development of self-esteem, and its use is currently being explored in Western medicine. Consider the golfer mentally rehearsing the shot, the sculptor "seeing" the figure waiting to be released from the marble, or the cancer patient picturing the medication battling the cancer cells—and winning!

What is Focused Imaging?

> "Thought is impossible without an image."
>
> *—Aristotle*

> **"Visualization is the difference between an artist and a mechanic. In the short game, especially in pitching, the artist will win every time. Once you become competent with the mechanics, develop your imagination so you, too, can become an artist."**
>
> **Ray Floyd, Professional Golfer**
> **From *Sixty Yards In***

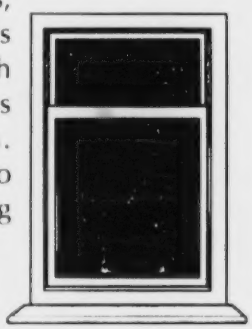
"Most of my work really involves geometry—simple geometric structures to perform a function. So I'll start with a geometric pattern in my mind . . . After I see the pattern, I'll try to find fault with it, and nine times out of ten, I can tear it to pieces, so I'll start again. But when I've got the right pattern, somehow I just know it's right."

—Lyndon Burch,inventor of circuit breakers, electromechanical switches, and waterproof thermostats.

Focused Imaging is the term used to describe the application of imagery to specific school curricula. Focused Imaging is a strategy the teacher can use with students to help them learn more effectively and develop their creativity by using their imaginations. Focused Imaging is like daydreaming with an agenda, an excursion without leaving the room.

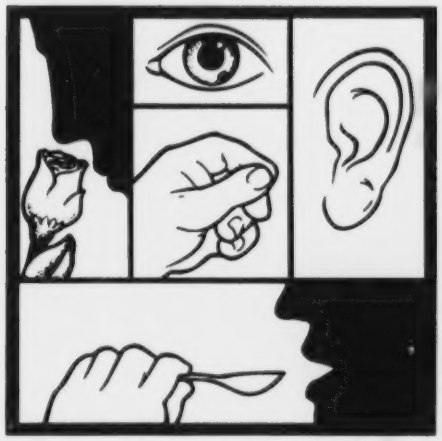
The process of creating images in the mind's eye calls into action the imagination and the senses to create images that are unique to each individual. It is generally successful for students because within the parameters of the experience, there is no "wrong" answer or incorrect experience. Students are working at their own levels and integrating the present activity with their previous knowledge and experiences.

Individuals experience an image differently. Although they may all be listening to the same music or hearing the same words, the meaning each student derives from the experience is unique. Focused Imaging is the vehicle through which an individual builds a bridge from external sensations and information to internal, personal awareness. Focused Imaging is a method students can use to assimilate the new information like raindrops running together down a window pane forming larger drops.



"I can give you nothing that has not already its being within yourself. I can throw open to you no picture gallery but your own . . . I can help you make your own world visible. That is all."

—Herman Hesse



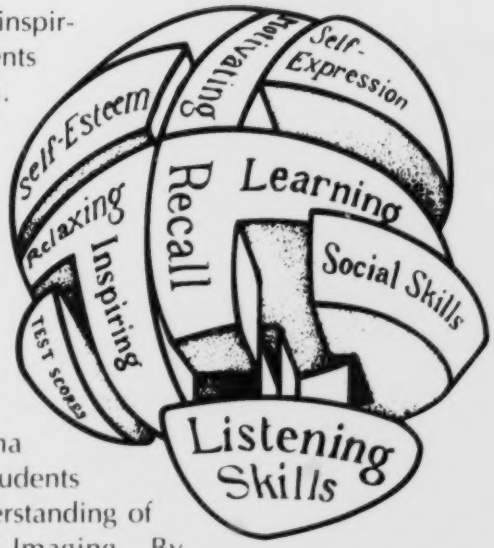
There are many different ways to experience and image. For some people an image is like a photograph and for others it can be seen, heard, sensed or felt. All ways of "seeing" the image are normal; there is no one right way. Often when asked to "picture" something, the sense of it may come before particular details. When asked to picture a beach or a path in the woods, the suggestion may conjure up a total sense. This "felt sense" (Gendlin, 1978) is the complete awareness of everything known and felt about the beach or the path without the sharp, clear edges of a photograph. The image may be blurred or dream-like or simply "felt".

Imaging is the body and mind working together. Focused Imaging is not solely intellectual or abstract; it calls all the senses into action. Think of a time when a particular scent or musical chord has triggered a flood of memories. Imaging has similar potential to act as a trigger to complete the "circuit" of body and mind working together—as those in the arts, athletics, and eastern medicine have already discovered.

FYI explores the use of Focused Imaging as a way to enhance student learning, imagination, and creativity.

"Children's imaginations are the most powerful and energetic learning tools."

—Keran Egan –
Teaching as Storytelling (1986)



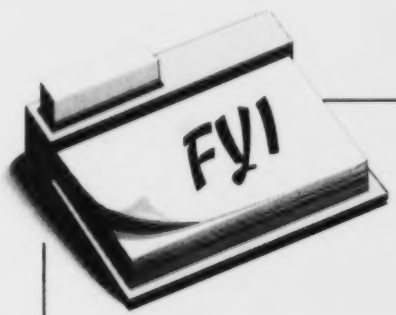
Focused Imaging is motivating and inspiring for students and teachers. Students often enjoy the experiences. Students have an opportunity to draw on what they know both consciously and intuitively, while developing critical and creative thinking abilities.

Focused Imaging provides an opportunity to mentally rehearse for a performance, group activity, cleaning up, lab experiment, drama or other tests of one's abilities. Students also broaden their conceptual understanding of subject material through Focused Imaging. By forming a mental image while reading, learning and recall are enhanced. Focused Imaging provides a vehicle for newly acquired information to be stored and later retrieved with greater ease.

Why Use Focused Imaging?

Focused Imaging is also useful for problem-solving as it sparks imagination and creativity. This is also a very effective beginning to any other creative endeavors—writing, acting, painting, role-playing.

Focused Imaging encourages the use of the senses in a meaningful way in the learning process appealing to a variety of ways of processing information. Studies have also indicated that imaging enhances students' self-esteem, improves self-expression, develops stronger inter- and intra-personal skills, increases control over personal behavior, increases the ability to relax, and improves listening skills. Teachers using Focused Imaging on a regular basis also report students doing better on tests (Lane, 1991).

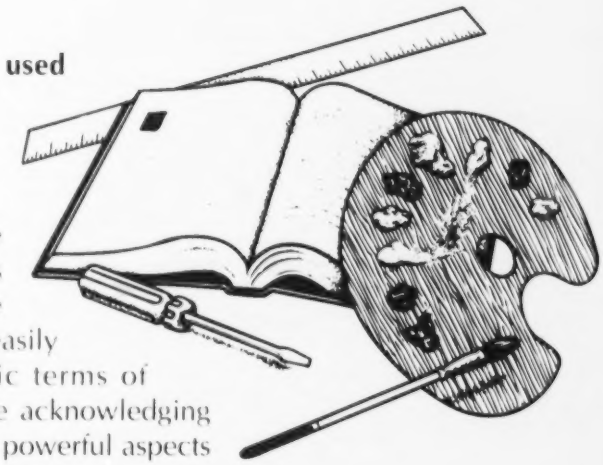


Through imagery, the mind performs operations such as exploring, selecting, simplifying, completing, and putting in context.

(Arnheim, 1969)

Focused Imaging - a safe experience

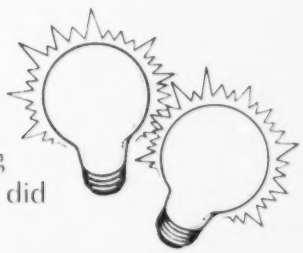
Given all of that, why isn't Focused Imaging used more extensively in the classroom?



Although imaging is a natural way of thinking, a learning tool, and is believed to have been the forerunner of language, during this century it has not been in favour. Perhaps this is because imaging has been in a "grey area" that is not easily quantified or measured in the behaviouristic terms of Western science. Researchers and scientists are acknowledging that the internal workings of the human mind are powerful aspects of learning and living. Imaging is regaining esteem as a natural way of knowing even though the process itself is not easily understood from the outside looking in.

> **". . . visual imagery has the potential for transcending the "computer" (verbal thought). In fact, almost every major advance in science or general knowledge seems to have been preceeded by some form of non-verbal imagery that triggered the conceptual leap.**
>
> ***—Elliott B. Forrest, OD, FAAO, FCOVD***

Reflections & Connections



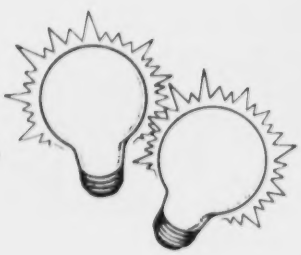
Are there times when you have experienced imaging yourself or used the process in the classroom? How did it work for you?

Breathing gently, take a moment to slowly count down from fifteen to one before reading the following description.

Picture yourself standing in the doorway of the classroom of a colleague. As you look in you see students sitting quietly, relaxed yet alert, with straight spines and most have closed eyes. The teacher appears to be reading something to the students. As you watch you can see the expressions changing on the faces of the students. The students are relaxed and attentive, appearing to be involved in what the teacher is saying. After a few minutes, once the teacher stops reading and looks up, the students open their eyes at various times. Some wiggle a bit in anticipation. Others move their heads slowly looking comfortably disoriented. A discussion begins and you realize that it is time to get back to your own students. You turn and move back toward your own classroom . . .

What Does Focused Imaging Look Like?

Reflections & Connections



As you walk back to your classroom, questions pop into your mind.

I must remember to ask about . . .

A team of teachers in your school have been using focused imaging with their students. They offered to share three recorded sessions with you. Kelly's lesson is first—

As you listen you notice that Kelly's voice is well-modulated and even, pleasant to listen to, and without distraction. You listen closely to the first sample on the tape.

". . . Today we are going on a field trip in our magic school bus to see how we get water when we turn on the taps in our homes and our school. You have already gathered many water facts in your research so now it is time to take a closer look. Let's pretend to put our scuba gear on. Put on the tanks and flippers, goggles and face masks.

Let's sit back down and take five large slow steps, in our minds, to get onto the magic school bus . . . Find your favourite seat. You can always sit in your favourite seat on this bus.

What Does Focused Imaging Sound Like?

As you look out the window it appears blank, like a frosted up piece of glass . . . We are on our way now and the windows become more clear . . . We are driving across a bridge. You can see the river below. As we drive, the bus starts to rise and rise slowly up into a cloud . . . Let's take a look around. Step out safely and feel the cloud. It feels like we are going up higher . . . and it's getting cooler . . . there are drops of water forming. Luckily we are dressed for exploring water. As the drops of water get bigger we get smaller until we are the size of raindrops. Feel yourself inside a raindrop falling through the sky. Splash! into the river . . . we are now flowing in the river toward the reservoir that holds the water for our city.

See the fences that keep animals and people from dirtying the water. The evergreen trees you see around the perimeter help keep dust and leaves from blowing into the reservoir.

Adjust your goggles! We're going into the pipe ahead heading for the mixing basin. Feel the mud and dirt on your skin ... covering your goggles. Alum is added to the water to clump the mud and dirt together so it gets heavy and settles to the bottom of the settling basin. It is easier to see in here where it is clear.

Let's swim up now into this smaller pipe from the top of the settling basin with the clear water. Now we are in the sand and gravel filter. The water filters down through a layer of gravel and a layer of sand to take out any impurities. We are pretty large impurities so we will have to climb out of the tank. Watch your flippers on the ladder.

As the water goes from the filter to the storage tank, chlorine is added to kill any remaining disease germs and fluoride is added to help kids from getting so many cavities.

It's time now to climb into the storage tank. Up the ladder into the tank. Watch your flippers. Whoosh! . . . we are being carried into the pipe that carries water into the city. The water pressure is carrying us quickly through the pipe. Into a smaller pipe now. Let the water carry you along. Now we are going into a smaller pipe up inside a wall. And out of the water faucet. What a surprise to be back in our school! Your diving gear is gone and you are all dry. We'll take five big steps to get back to our own classroom. One. Two. Three. Four. Five.

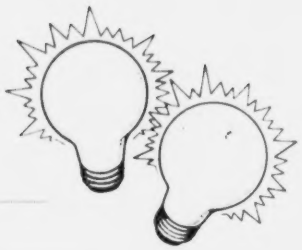
Wow. That was quite an experience travelling with the water. Let's talk about what we saw . . . What was your favourite part? What did you see? What questions do you have?

Let's now discuss each step in our experience with the water. Then we can draw the steps and create a mural."

Kelly shares that this focused imaging experience was an opportunity for the students to find out more about how clean water gets to us and to review. The class has been studying about water and water conservation. This experience sets the tone for a class mural illustrating the water cycle and the process of getting water from the reservoir into home and buildings.

NOTE: This script was inspired by *The Magic School Bus at the Waterworks* by Joanna Cole (1986). In other books the magic school bus goes inside the human body and inside the earth. Kelly finds that inspiration frequently comes from books connected with themes the class is studying. Resource Section 5 lists other Idea Starters/Inspiration.

Reflections & Connections



When I read this script I felt . . .

I thought . . .

In this example, the students were given information they were going to later use in creating a class mural. The information could also have been conveyed through a lecture and notes. Focused Imaging, in this case, presents the information in a fanciful, memorable way that involves the student.

I could use Focused Imaging to share information about . . .

You turn on the tape again, this time listening to Taylor.

"We are now ready to travel in time. You are relaxed and alert, eager to visit the time of the giant mammals.

Think of the things you will need to take with you. Perhaps you will take a camera or sketch pad, to record the images you see on our field trip to the time of the giant mammals. A tape recorder or video recorder might be handy . . . Put your equipment into your backpack and let's move on.

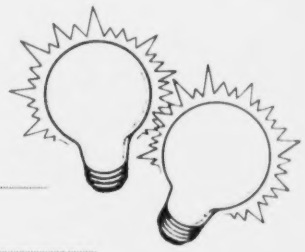
In your mind, look behind you and see a great long time line stretching out like a concrete sidewalk behind you. We are going to walk back along that line, taking large steps, perhaps skipping along. Back, back we go.

Take a careful look around. Hear the breeze in the distant trees. . . The birds calling overhead. The earth smells musty and new. You feel its sponginess as you walk. Look! A huge mastodon moves over here to feed. . . It looks like a furry elephant. Not much left to eat. Oh no! He doesn't see the saber tooth! The saber tooth is creeping toward the mammoth, inching around the rocks . . . His razor teeth sharpened to points. See him crouching and ready to spring!

R I I I N N G G !

There goes the bell. We will resume tomorrow."

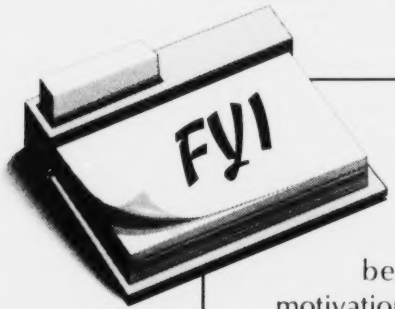
Reflections & Connections



When the scene ended abruptly I felt . . .

Taylor shares with you that the time just flew by during this period and the bell rang much too quickly. Although class periods may be of a certain length of time, it is important to account for this so that the experience can be concluded in a satisfactory way. Students found this experience "startling".

The conclusion of this script is in Appendix B.



It is very important to complete an image and return the focus of the students to the classroom. Failing to do so may result in a disoriented feeling, like a gasp, for those who have truly become involved in the image. This may be motivational if the students will be completing the image on their own or as is the case in the next example.

As you turn on the third example you remember that another colleague, Carrie, had used this script to "create an impact" . . .

Imagine a piece of blank white paper . . . on that paper imagine a beautiful beach with white sand . . . the beach is empty . . . the water is blue . . . so blue that you can see through it. The waves are calmly rolling onto the shore . . . you can hear the water splash as it hits the beach . . . The sky is completely clear . . . not a cloud in sight . . . the sun is beating down ... reflecting off the water and heating the white sand. A seagull is seen in the distance but it is too far away to be heard. A woman is walking along the beach barefoot . . . she stops and pulls out a package of cigarettes . . . takes one out of the pack and lights it with her last match tossing the match and its package in the water. She continues walking.

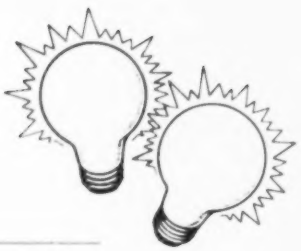
A family of two little boys and their parents lay a blanket on the beach for their picnic . . . the picnic basket is huge and filled with sandwiches, fresh fruit, cookies, cake and juice . . . the food is wrapped in plastic wrap and the juice is poured in plastic cups. When the picnic is over one of the little boys is asked to throw the wrappings away in a far-off garbage can. It is too far for him and he buries the plastics in the sand and runs off to play.

Further down the beach, two teenage girls are laying on their beach towels, and turn on their ghetto blaster. Even though you are far from them you can hear their music pounding across the sand. As the sun begins to set they tuck everything into their bags leaving behind only sunflower seed shells and empty suntan lotion bottles.

With the moon now full in the sky, a group of partiers build a camp-fire on the beach . . . singing and dancing till dawn. As you look down the expanse of your beach you realize you are the only one still remaining. A new day is about to begin . . . the sand is filled with ashes and half-burnt logs, bottles and bottle caps are strewn everywhere—even in the water. Plastic wrap and half eaten food, suntan lotion bottles, matches, cigarette buts and other litter lay on the beach and in the water. Clouds are scattered across the sky threatening rain. Another beautiful day has begun.

(Developed by Carrie Malloy, student, University of Saskatchewan, College of Education, 1991.)

Reflections & Connections



How did you feel after completing this experience?

Are there areas you are currently working on that would benefit from students experiencing an image with an impact?

In this example, Carrie used Focused Imaging to begin a unit on the environment. Students were left with the image of the littered beach and returned to the classroom quickly to leave them with the impact of the pollution on the beach.

This could be followed by discussion, painting their feelings, or journal writing. Action plans aimed at dealing with garbage could be made as follow-up and application. These plans included a clean-up trip at a local park or the school ground, in-depth study of the impact of humans on the environment.

Carrie found the students involved and fired-up about the state of the beach and ways in which they could help "clean-up".

Kelly, Taylor and Carrie shared the ways that they had prepared their students for focused imaging. They had . . .

1. Created a safe classroom environment. They found the following checklist helpful.

Environmental Checklist

Please respond with YES or NO to the following questions:

1. Is there a feeling of co-operation in the class?
2. Are students free to explore new ideas?
3. Do the words "open," "receptive," and "positive" describe the tone in the class?
4. Are the ideas of students accepted in a non-judgemental way?
5. Are students free to "guess" without being criticized by classmates?
6. Can you live with "no right or wrong answers, only different ones?"

If you answered "yes" to the majority of these questions, the environment in your class is condusive to Focused Imaging. If "no" came up more often, work with the students to develop these areas before starting Focused Imaging.

Adapted from *Planning Adventures: Synectics* (used with permission).

Preparing for Focused Imaging

They also . . .

2. Modeled Focused Imaging by describing what they saw in their mind's eye when sharing information or making discoveries. They valued contributions that others made and took time to discuss the images and ideas generated.

3. Kelly started in simply with games to get the mind's eye in shape for more detailed imaging.

➤ Bring out a tray of common objects that is displayed for a short time. Remove the tray and ask the students to recall what was on the tray by "seeing" it again in their mind's eye rather than remembering the words for the objects.

➤ Have a student leave the class so that others in the class can try to "picture" that student and recall what he or she was wearing. A variation of this can be done by having students sit back, describing what their partner is wearing.

➤ Create an image of a familiar activity by asking students to "photograph" the image and then describe it to a partner.

➤ Recall familiar objects from home. Draw them and then take the drawing home to compare.

4. Taylor played "Picture This . . ." with concrete, familiar objects, activating as many senses as possible with the descriptions.

> *Picture this . . . a warm, ripe nectarine . . . its smooth skin . . . soft to bite . . . sinking your teeth into the fruit . . . feeling the juice run down your hand . . . the smell of the nectarine, inviting . . . juice glistening on the stone as you reach the middle. . .*

➤ Read highly descriptive passages to students asking them to create "mind pictures" as you are reading. Follow-up by drawing and discussing the pictures or comparing to illustrator's versions (see grade 2 lesson plan in Appendix).

➤ Create a tape of sounds. Students try to picture the source of the sound.

➤ Play an old radio show or a television program with the picture blacked out. Students describe the characters and the scenes, draw them, or role play.

➤ Collage, paint, draw, dance, or mime to "visual" music. (Examples are listed in the Resource section.)

➤ Create the photo for a newspaper article or the illustration for a riddle or joke.

➤ When reading to students, ask about the images created in their minds—What did the giant look like?—and compare with the book's illustration.

5. Kelly , Taylor and Carrie introduced a variety of ways to relax to their students.

Quick Ways to *RELAX*

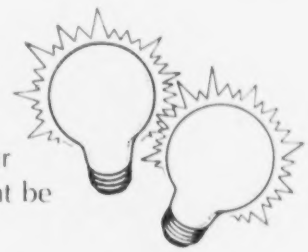
1. A good yawn and stretch.
2. Smiling.
3. A deep breath. Three is even better.
4. Massaging finger "webs."

More ideas can be found in Appendix A.

Kelly, Taylor and Carrie explain that Focused Imaging is one part of a total lesson plan, most often being used as the motivational set. The following section outlines their ten steps for developing a Focused Imaging lesson. They also include a lesson plan sheet that they have found helpful in planning their lesson (page 22-23).

1. From the areas students are currently studying, choose a topic for focused imaging. Ask yourself if this method is an appropriate way to meet the objectives you have for this particular lesson.

Reflections & Connections

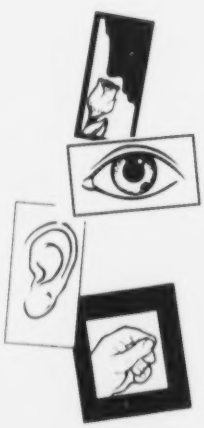


What areas are your students working with in your class? Choose one for which Focused Imaging might be appropriate.

The Focused Imaging Lesson

2. Develop the experience using music or stem imagery (which supplies only the beginnings rather than the details). This leaves ample opportunity for the individual student to supply details that are meaningful for them.

Another way to develop the experience is through a written script presented to your students. It is important to choose the method that will best fit with your objectives for the lesson. Drawing upon as many senses as possible creates a more complete experience.



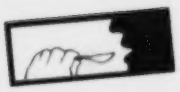
For example, **smell** the ocean air, fragrant bread, thawing earth in spring, evergreen trees.

See the lights of the highlands pressing against the fog, streetlights dancing on the rain swept downtown streets, the silhouette of a gull in flight against the bright sun, a snowflake landing on your brightly-colored mitten.

Hear the soft rain on the leaves of the trees, a dog breathing quietly in sleep, the excitement of people at a concert as the lights go down, the bubbling of the fish tank or the hum of the computer.

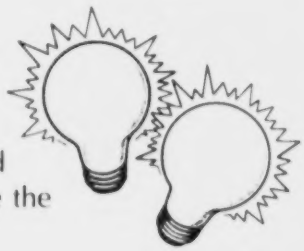
Touch the coarse sand, the pebbles underfoot on the beach, the oozy mud in the murky water, a soft globe of a pink, smooth shell, the rough edges of

the newly cut cedar plank, the five-day-old spaghetti that slithers into the compost from the bucket.



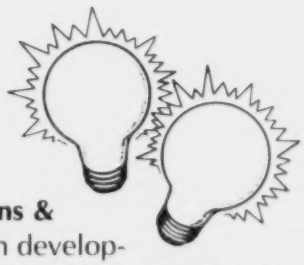
Taste the freshly made yogurt with garden strawberries, the warm bread with melting butter, the icy cold spring water, or the first bite of a crisp apple or a perfect grape.

Reflections & Connections

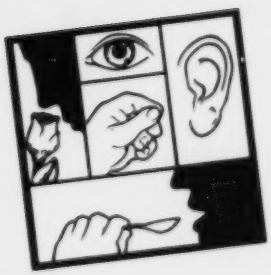


As you read those images, which were the most vivid for you? Could you feel the pebbles, smell or taste the warm bread, hear the rain or see the snowflake?

You may have modality preferences. Your students, too, may have modality preferences. Involving all senses makes it more feasible to reach all students.



Connecting your choice from the previous **Reflections & Connections** box to the senses is an important step in developing a focused imaging script or in choosing music that might enhance the imaging. In this box there is an opportunity to brainstorm senses words or phrases for your topic.



Smell

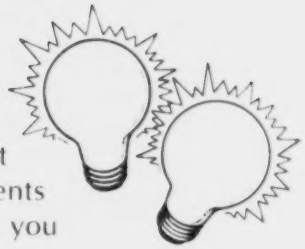
See

Hear

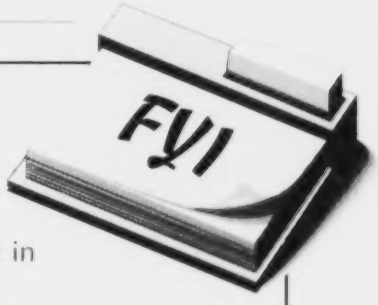
Touch

Taste

Reflections & Connections



Kelly wondered if more could be done to the script about the waterworks (page 9-10) to help students experience the image more completely. What do you think?



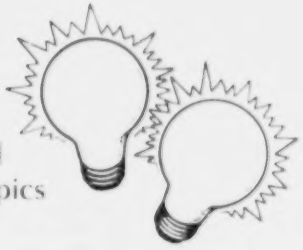
If you have chosen to develop a script, you may wish to consider the following points:

a. Write in story form presenting events and information as they would occur in real life.

b. Be as descriptive as possible to put the student in the situation.

c. Leave pauses (. . .) for students to form their own images. When using stem imagery the pauses may need to be longer.

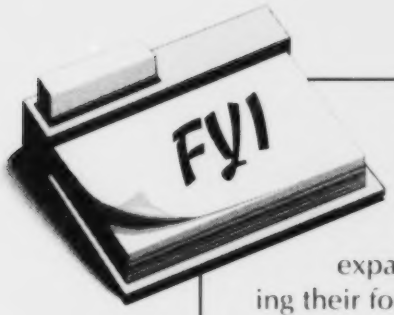
Reflections & Connections



This space is provided for the creation of a Focused Imaging script to try with your students on the topics you had chosen earlier.

3. Try the experience with a colleague or tape record the script to see how it sounds and if the pauses left are sufficient for the students' imagination to work. It is important to remember that images cannot be forced or pushed.

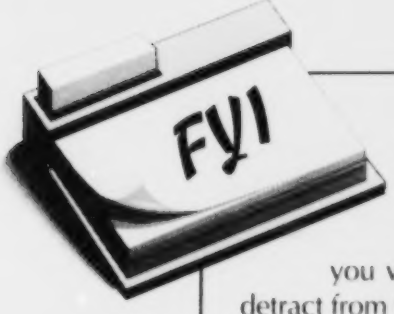
4. Students prepare for the experience by relaxing. There are several ideas listed in Appendix A. Relaxing is so important—it opens the doors to imagination and allows the images to flow.



Invite the students to focus on something in their mind's eye that is of one colour and free of distraction such as a blank piece of paper, a piece of black velvet, a snow bank, or the sun glistening on a wide expanse of water. Return them to this image before returning their focus to the classroom.

Leave the option open for students to not participate if they are uncomfortable, but enlist respect for those who are involved by remaining still and quiet until the experience is over.

5. Move into the image through the stimulus you have chosen or developed. (your script, music or the stems)



Make the room as free from noise and distraction as possible. Try to keep your papers from rattling. Stay in one spot as you guide the experience rather than moving around the room. The sounds you make as you walk and the change in the location of your voice may detract from the experience for the students.

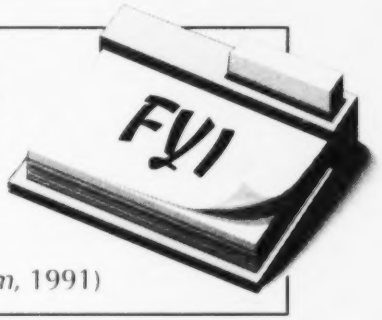
6. Leave adequate time for images to form and be experienced. Images cannot be forced or pushed, and being relaxed and letting the image flow is an important part to the development of the experience.

7. Invite students to bring something back with them to continue on with any application. This could be a "photo" they take or a box of objects they have gathered on their trip ... something to remind them of their experience. If the class is over before they have been able to apply the experience, they could bury the box or put the photo in an "album". The box or album could be referred to in the next class.

8. Return the students' focus to the blank paper or wall that was free of distraction from which they had started.

9. Always return the students' focus to the classroom before you begin the debriefing process.

10. Much of the value for the students occurs after the experience. Discuss the experience. Discuss the experience using open-ended questions that encourage further image elaboration. Write about it. Draw it. Create or choose music to accompany it. Develop a metaphor or analogy for the experience. It is important, however, to not force a student to share their image, but to allow as many opportunities for this image to be expressed if they wish to do so.



"Open-ended questions sound like"

What did you see? Would anyone like to share their images? What else? Did anything surprise you? What prompted that idea for you?

(*Glad You Asked That! Questioning in the Classroom*, 1991)

Summary

Before the lesson

1. Choose a suitable time to use focused imaging.
2. Develop the experience.
3. Practice with the students.
4. Begin with relaxation.
5. Present image free of distraction.
6. Share the experience.
7. Return to the image free of distraction.
8. Return the focus of the students to the classroom.
9. Provide plenty of opportunity to debrief the experience.
10. Reflect and apply it in a meaningful way.

Focused Imaging — LESSON PLAN SHEET

TOPIC

OBJECTIVE

- *Is focused imaging a way to achieve the objectives for the lesson?*

PROCEDURE

1. Relaxation - *many suggestions can be found in Appendix A.*

2. Imaging stimulus (poem, music, description, script, etc.)

a) looking at a neutral image
b) developing the focused image
c) returning to the neutral image
d) returning the students' focus to the classroom

3. Debriefing

Can include discussion, drawing, painting, dance to further enhance the image

4. Application (student reflection)

The product of the debriefing may be the application as well or the application may be an extension of the debriefing (i.e. class mural in The Magic Bus).

EVALUATION

Depends on your objectives
The methods you choose to use also depend on objective, application

REFLECTION

Ideas to ponder . . . student reflections in journals, etc.

- *reactions of the students*
- *the stimulus (any changes necessary?)*
- *the application*
- *address student thinking/learning; range of understanding students demonstrate regarding the particular concept under study.*

MATERIALS

- *the stimulus*
- *things needed for the "application"*

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Focused Imaging — LESSON PLAN SHEET

TOPIC

OBJECTIVE

PROCEDURE

1. Relaxation

2. Imaging stimulus (poem, music, description, script, etc.)

3. Debriefing

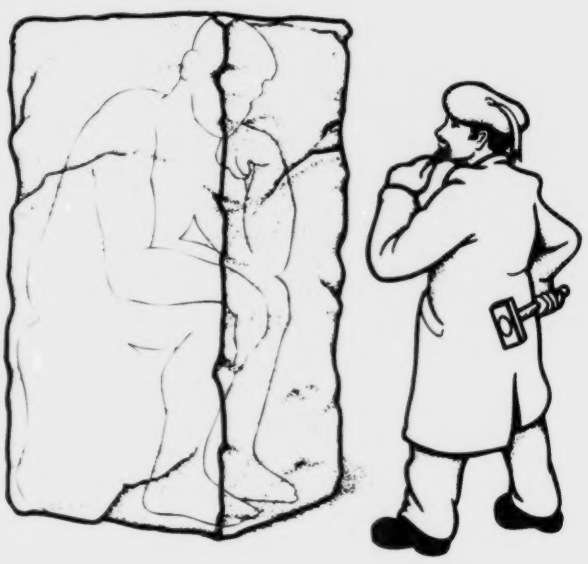
4. Application (student reflection)

EVALUATION

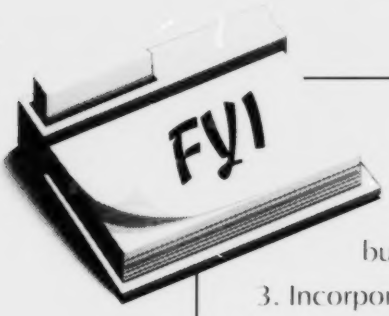
REFLECTION

MATERIALS

It is sometimes difficult to find a starting place for Focused Imaging. Curriculum guides are a place to look for ideas, as are the interests of you and your students, and current events. Some topics are given in the Appendix. Analogies and metaphors that students may be working with are also places to start. For instance, if an electrical circuit is likened to a water pipe, then students can focus on the image of electricity flowing through the wire in the electrical current (Happs & Manfield, 1992).



Lesson Ideas



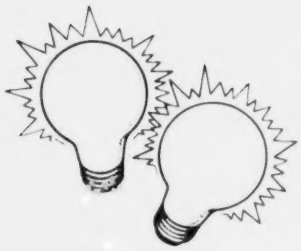
Some other ideas to consider focusing on:

1. Linking arms with people around the world ...
2. Riding on an electrical current through a light bulb ...
3. Incorporating personal memories to develop empathy ...
4. Looking at an insect's world from their point of view ...
5. Moving and changing a mental image ...
6. "Coloring" emotions and changing the color ...
7. I before E except after C ...

The ideas are limitless, and as you start thinking in terms of Focused Imaging, you too will come up with many ideas.

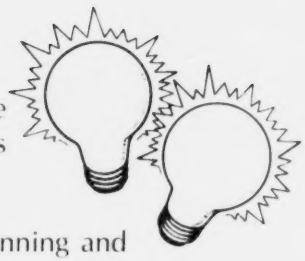
More ideas are in Appendix B and Resource Sections 3 and 5.

Reflections & Connections



Some ideas I could use are . . .

Teacher Reflection



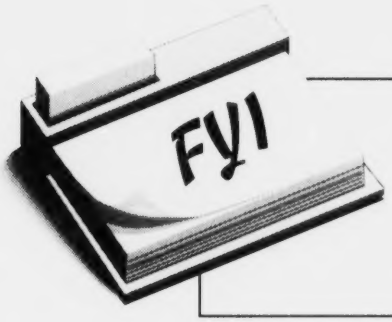
When learning a new strategy or fine-tuning one that is already part of your repertoire, reflecting is an important part of the learning process.

➤ Use mental rehearsal and imaging in your planning and also to reflect on the lesson.

➤ Use an audio tape or a video tape to record a session with your students. The video camera could be focused on the students to watch their reactions throughout the experience. This may give you valuable information about the impact of the image.

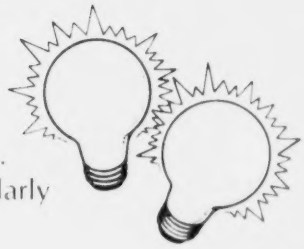
➤ Reflect on an audio tape of your delivery of the image may be helpful in fine-tuning for next time. A recording of the discussion after the experience allows you to further analyze the depth of student understanding of the particular concept under study and to prepare for future sessions.

➤ Working with a colleague may also be helpful when reflecting on the experience. Discussion may result in further insights as to the effectiveness of the process with your students.



Like Ray Floyd or the sculptor, do your own mental rehearsal by creating an image for yourself of how you wish things to go.

Reflections & Connections



Reflecting on teaching can take a variety of forms. Are there some ways that you have found particularly useful?

Some resources to consider are:

Ash, T. (1993). *Reflective Teaching*. Saskatchewan Professional Development Unit/Saskatchewan Instructional Development and Research Unit, Regina.

Mills, S. (1990). *Practical Guide to Peer Coaching*. Saskatchewan Professional Development Unit, Saskatoon.

Focused Imaging Highlight Sheet

WHY use this strategy?

- to develop mental imagery, imagination and creativity
- to further develop learning skills, self-esteem, empathy
- to increase academic performance through mental rehearsal and making personal connections to information

WHEN would you use this strategy?

- before a quiz or test, creative writing, drama, creation of visual art, further study
- as a motivational set; to create an experience
- after or during a unit of study to draw upon and further integrate concepts and processes being learned

TEACHER'S ROLE

- to provide the "focus" in the form of a stimulus
- to act in a caring, thoughtful fashion in developing the stimulus and the handling of the lesson

STUDENT'S ROLE

- to relax
- to participate and contribute what they are comfortable sharing
- to draw upon prior knowledge and experiences

WHAT does it look like to an observer standing in the doorway?

- Students listening attentively, most likely with eyes closed, but not necessarily so
- Teacher reading, watching, or participating
- Discussion and activity following the first segment

CAUTIONS

- Always complete the experience, returning the focus of the students to the classroom.
- Use in a relaxed atmosphere.
- Debrief the experience thoroughly.
- Be open to a VARIETY of responses.
- Understand that the Focused Imaging is a part of the lesson plan (see lesson plan sheet).

It is interesting to note that. . . . .
teachers who use imaging regularly notice improvement in academic and social areas AND that students WANT to continue with it!

SECTION 1 — General Overviews

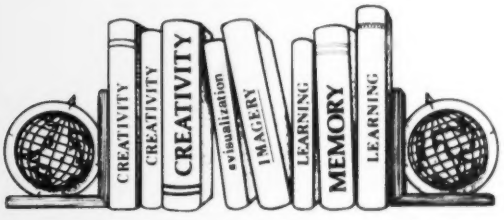
Waas, L., (1991). *IMAGINE THAT! Getting Smarter through Imagery Practice.* Jalmar Press. California.

- *excellent research base combined with plenty of examples. Well worth seeking out.*

Wood, K., (1989). Using guided imagery to enhance learning. *Middle School Journal.* November. (p. 26-28).

- *good general article giving suggestions for developing imagery with students.*

Resource Selection



SECTION 2 — Curriculum Specific Application

Fredericks, A., (1986). Mental imagery activities to improve instruction. *The Reading Teacher*, October. (p. 78-81).

- *practical steps are outlined.*

Gambrell, L., Kapinus, B., & Wilson, R., (1987). Using mental imagery and summarization to achieve independence in comprehension. *Journal of Reading*. April. (p. 638-641).

- *describes how to teach students how to use imagery.*

Happs, J. & Mansfield, H., (1992). Estimation and mental-imagery models in geometry. *Arithmetic Teacher*. September. pp. 44-46.

Harp, B. (1988). "Why are you doing guided imagery during reading time?" *The Reading Teacher*. February. p. 588-590.

- *good ideas for having students imagine themselves in situations prior to reading.*

Jencks, S. & Peck, D., (1968). *Building Mental Imagery in Mathematics*. Holt, Rhinehart & Winston, Inc.

- *lots of practical ideas for using imagery in math.*

Pollard, M., (1992). Cultivating the metaphoric mind: using visualization in the classroom. *Alberta English*. Spring. (p. 20-25).

- *excellent article with well-written examples to try.*

Tozeland, J., (1991). The use of guided imagery and storytelling. Manitoba *Journal of Counselling*. November. (p. 17).

- *succinct article describing a method of reaching students through imagery and metaphor in a counselling situation.*

Wheatley, G., (1991). Enhancing mathematics learning through imagery. *Arithmetic Teacher*. September. (p. 34-36).

- *good overview, rationale, and research findings presented.*

Yackel, E. & Wheatley, G., (1990). Promoting visual imagery in young pupils. *Arithmetic Teacher*. February. (p. 52-58).

- *practical ideas for starting out.*

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SECTION 3 — Script Examples

Bagley, M., (1987). *Using Imagery in Creative Problem Solving.* New York: Trillium Press Inc.

- *many examples of unguided imagery. Clear, concise introduction.*

Bagley, M., & Hess, K., (1984). *200 Ways of Using Imagery in the Classroom.* Trillium Press. New York.

- *a detailed introduction to imagery and 200 exercises or samples to try to use with students at all grade levels as well as in various subject areas.*

De Mille, R., (1967). *Put Your Mother on the Ceiling.* Penguin Book 1976. Markham, Ontario.

- *children's imagination "games" to develop flexibility in creating images and with attention paged to distinguishing imagination and reality.*

Harp, B. (1988). "Why are you doing guided imagery during reading time?" *The Reading Teacher.* February. p. 588-590.

- *good ideas for having students imagine themselves in situations prior to reading.*

Seyba, M., (1984). *Imaging: a Different Way of Thinking.* Educational Impressions, Inc. New Jersey.

- *excellent starters for students for developing the "photographer" of the mind.*

SECTION 4 — Background Information

Arnheim, R., (1969). *Visual Thinking*. University of California Press. Berkley.

Bagley, M., (1987). *Using Imagery in Creative Problem Solving*. New York: Trillium Press Inc.

- *many examples of unguided imagery. Clear, concise introduction.*

Bagley, M., & Hess, K., (1984). *200 Ways of Using Imagery in the Classroom*. Trillium Press. New York.

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De Mille, R., (1967). *Put Your Mother on the Ceiling*. Penguin Book 1976. Markham, Ontario.

- *children's imagination "games" to develop flexibility in creating images and with attention payed to distinguishing imagination and reality.*

Egan, K. (1986). *Teaching as Story Telling*. The Althouse Press. University of Western Ontario.

- *background information.*

Egan, K. & Nadaner, D., (1988). *Imagination and Education*. Teachers College Press. New York: Columbia University.

- *interesting theoretical background*
- *linking visual imagery, imagination and education. In this chapter, Nadaner introduces social imagery and the use of personal imaging in counteracting media stereotypes.*

Forrest, E., (1981). Visual imagery as an information processing strategy. *Journal of Learning Disabilities*. December. p. 584-586.

- *interesting and informative article written by an optometrist.*

Gendlin, E., (1978). *Focusing*. Bantum Books. Toronto.

- *interesting application of focusing to personal problem solving. Thorough discussion of the "felt sense".*

Gordon, R., (1972). A very private world. In Peter Sheehan (Ed.), *The Function and Nature of Mental Imagery*, pp. 64-80. New York: Academic Press.

- *background information*

Lazear, D., (1991). *Seven Ways of Knowing*. Skylight Publishing. Palatine, Illinois.

- *looking at different ways to incorporate activities to address the multiple intelligences identified by Howard Gardner. Of particular interest is Chapter Three entitled "Seeing is Believing . . . and Knowing!"*

Petroski, H., (1992). *The Evolution of Useful Things*. Random House of Canada Limited.

- *the author follows the path of the invention of everyday items.*

Samuels, M. & Samuels, N., (1975). *Seeing With the Mind's Eye*. Random House. Toronto.

- *in-depth look at visualization . . . its history, techniques and uses.*

Saskatchewan Education. (1991). *Incorporating the Common Essential Learnings and the Adaptive Dimension: a Resource Package*. Saskatchewan Education. Regina. (p. 79-90).

- *basic explanations, starters, and a guided script.*

Seyba, M., (1984). *Imaging: a Different Way of Thinking*. Educational Impressions, Inc. New Jersey.

- *excellent starters for students for developing the "photographer" of the mind.*

SECTION 5 — Idea Starters and Inspiration

Books that conjur up images like . . .

- *The Magic School Bus* Series - Joanna Cole. (see p. 10)

- *Just for a Day* Series - Joanne Ryder & Michael Rothman
  • *written as focused imaging scripts. For example in White Bear, Ice Bear, (1989) Morrow Junior Books, New York, the reader (or listener) is invited to imagine waking up one cold winter morning and changing . . . into a large furry polar bear. The book takes the polar bear through a day experiencing sounds, smells and sights.*

- Leonni, L. (1967) *Frederick*. Pantheon. New York

Music that opens the door to imagine like . . .

- Classical pieces

- Sound tracks . . . for example
  - *Saving the Wildlife*, Mannheim Steamroller (1986) from the PBS Television Special Sound Track Album.

- Instrumental Pieces . . . for example
  - *Oriental Sunrise* Riley Lee (1984) Narada Productions
  - *Solitudes* series. Dan Gibson (1991) Dan Gibson Productions Ltd.
  - *Beneath the Waves* (vocals by the Humpback Whales) Ralph Harding, producer (1989) Total Recording Co. Ltd.

- *The Visit* (instrumental selections) - Loreena McKennitt (1991) Quinlan Road.

- Anything by Andreas Vollenweider
  - *Book of Roses* (1991) Columbia
  - *White Winds* (1984) CBC Records Canada Ltd.

Appendix A

Relaxation Ideas

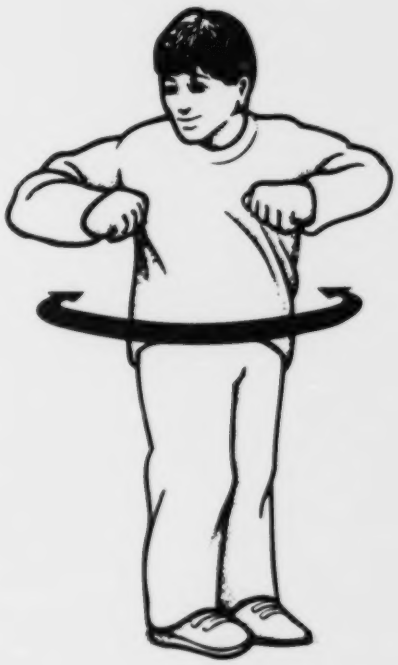
As the first step in the focused imaging process, relaxation is an important element. Images cannot flow as easily when the mind is cluttered and tight with tension. On the other hand, a student so relaxed that sleep comes before images does not benefit from the experience either. Sitting with a straight spine rather than with head on the desk or lying on the floor helps to ensure relaxed alertness for the focused imaging experience.

The following list is a dozen ways to encourage relaxation in the classroom. Other examples can be found in other books listed in Resource Section 3. The Stress Reduction Model in *Models of teaching* (Joyce & Wiel, 1992) is also useful in encourage relaxation. As with any method, the true benefits reveal themselves when the students begin to use these methods appropriately in "life in general".

1. Take ten deep breaths. Feel the breath right down to your toes. Exhale slowly each time.

2. Count back to one from twenty, feeling increasingly relaxed as you near one.

3. Stand with feet shoulder width apart. Swing your arms around your body on a plane the same as the horizon.



4. Sit on the floor with your hands clasped behind your knees (which are bent). Gently roll back and forth, rocking on your spine. (Carpeted surface or mats please!) Repeat several times.

5. Practice uncritically attempting to focus your attention on one thing at a time (meditation).

6. Cup your hands over your eyes and think BLACK to relax your eyes.

7. Tense and release muscle groups working from the feet up to the head (being on the floor is preferable).

8. Take a deep breath (3 is even better).

9. Have a good yawn and a good stretch.

10. Clench-and unclench!-your teeth (if you have a good set!) 3 or 4 times.

11. Massage your finger "webs" of your whole hand.

12. Put your hands in the "itsy-bitsy spider" position. Press your fingertips together and hold for a few minutes. Repeat.

In this section are several examples of how focused imaging can be used in the classroom. The plans illustrate various subjects and grade levels.

Grade Two - Language Arts/Science

Grade Five - Math

Grade Nine - Social Studies

Grade Twelve - Science

General - Mental Rehearsal

- exam
- room clean-up
- spelling

These plans are included to spark your imagination. Resource Section 3 includes several other ideas for using imagery in the classroom. *200 Ways* has two hundred different scripts to get started on. As with learning anything new, the first few times you try to develop scripts on your own, it may be slow going. With practice it seems to become easier. Examples may also start leaping out as you begin focusing on focused imaging.

Appendix B

Sample Lesson Plans

Focused Imaging — LESSON PLAN SHEET

Grade 2
Language Arts and Science

TOPIC
- *Exploring Weather ——► Seasons*

OBJECTIVE *(from Sample Lesson 3)*
- *to form sensory images while listening*

PROCEDURE *(use Sample Lesson 3, beginning imaging after engaging activities)*

1. Relaxation - *play a short piece of quiet music while students sit quietly with closed eyes.*

2. Imaging stimulus (poem, music, description, script, etc.)
- *invite students to picture a blank piece of large white paper and then start into the poem*
- *return to the blank paper after completing the poem*

3. Debriefing
- *paint pictures of what was seen in their mind's eye, share, and discuss.*

4. Application (student reflection)
- *discuss unfamiliar vocabulary, etc. from Sample Lesson 3.*

EVALUATION
- *Observe students' interpretations as they share their images.*
- *Note comfort and confidence on observation sheet.*

REFLECTION
- *was the students' understanding enhanced by the focused imaging followed by the paintings?*

MATERIALS
- *poem*
- *painting supplies*
- *observation sheets*

Sample Lesson 3 Seasons (Grade 2 "Exploring Weather" Sample Unit 2).

Learning Objectives

- To form sensory images while listening.
- To incorporate the vocabulary of Science into their talking and writing.(C)
- To describe daily weather changes. (Science)
- To describe seasonal weather changes. (Science)

Resources

- *The Random House Book of Poetry for Children*
- *Sing a Song of Popcorn* (poetry anthology)

Strategies

Instruction

Brainstorming
Categorizing
Reading to students
Visual imaging
(Book making)
(Choral reading/speaking)

Assessment

Observation

Engaging Activities

- Label four charts for our four seasons or divide the chalkboard into areas for Fall, Winter, Spring and Summer. Under each season print "Weather" and "People," as headings for two columns.
- Starting with the present season, **brainstorm** the conditions of seasonal weather and appropriate descriptions or "weather words" for each season. List these.
- Continue to **brainstorm** and **categorize** weather-controlled seasonal activities, accompanying feelings, and appropriate clothing. List these in the "People" column.

Exploring Activities

- **Read to students** "The Four Seasons" from page 35 of the *Random House Book of Poetry*.
- Reread the four seasonal verses, one at a time. Ask the students to listen for "weather words," activities or feelings they could add to their brainstormed lists.
- Discuss any unfamiliar vocabulary. (The word "fragrant" is used by the poet to describe the fall air. Generate synonyms for such words.)
- Introduce a **visual imaging** activity by asking students to close their eyes and imagine the picture the poetry is *painting* with his colourful words.
- Read the poem again.
- Discuss students' favourite images, verses and seasons. Share your favourites as well. Why are these seasons favourites?
- **Observe** students' favourite images, verses and seasons. Share your favourites as well. Why are these seasons favourites?
- **Observe** students' interpretations as they share their images. Note comfort and confidence in class discussion. Note particular strengths and weaknesses on an **observation** sheet.
- Conclude the lesson by **reading** "So Long As There Is Weather" from *Sing A Song Of Popcorn*. Invite students' responses, comments and questions about this poem before asking them what kind of weather the poet favours. What would students see and feel if there was no weather outside today? Have students share their perceptions of "no weather at all!"
- Quickly summarize today's weather, affirming that there is weather indeed!

Lesson Extensions

- Share poetry about weather or seasons with students and ask them to bring poems, rhymes or songs they have at home or find at the library to share with peers and add to the present resource collection. Match chants or poems with daily weather, and share these with students every day for the duration of this unit.

English Language Arts Elementary Gr. 1-5.

Focused Imaging — LESSON PLAN SHEET

Grade 5
Math

TOPIC

- Whole Numbers - addition

OBJECTIVE

- to use focused imaging to strengthen the concept of making tens to reason out sums and solve problems.

PROCEDURE

1. Relaxation - use arm swings (p. 34 FYI) and invite students to picture an open green meadow stretching out as far as they can see.

2. Imaging stimulus (poem, music, description, script, etc.) developed from the following ideas:

- see - marching fuzzy-topped toy soldiers in black, changing into bright colors as they form groups of 10.
- hear - marching, rhythmic sounds
- taste and smell - jellybeans!
- touch - their fuzzy hats

3. Debriefing

- discuss the images

4. Application (student reflection)

- use making tens in assignment. Encourage students to return to the marching soldiers who can change colors.

EVALUATION

- the students' assignments
- the discussion (anecdotal records)

REFLECTION

- was their approach effective for the students who had been experiencing difficulty?
- was I able to convey the structure of the 10s through my tone of voice for the script?

MATERIALS

- prepared script
- assignment in text
- "jellybean" soldiers to group?

Focused Imaging — LESSON PLAN SHEET

Grade 9
Social Studies

TOPIC

- *Time and Measurement*

OBJECTIVE

- *to identify different ways of measuring time through focused imaging*

PROCEDURE

1. Relaxation - *sit back in your most comfortable chair and picture a huge blank movie screen . . .*

2. Imaging stimulus (poem, music, description, script, etc.)

- *of various ways detailed in the resource materials available*
- *return focus to the blank screen*

3. Debriefing

- *discuss the images students experienced*

4. Application (student reflection)

- *create measuring time collages and poems (arrange with Art and English teachers)*

EVALUATION

- *understanding of the concept demonstrated in future assignments, poems and collage projects.*

REFLECTION

- *was I respectful of their images and were the other students also respectful?*
- *was it an effective way to introduce the concept?*

MATERIALS

- *double check with other teachers involved*

Focused Imaging — LESSON PLAN SHEET

Grade 12 Chemistry

TOPIC

- *Chemical Equilibrium in aqueous solutions*

OBJECTIVE

- *to have students experience the transient nature of the particles in the solution (introductory lesson)*

PROCEDURE

1. Relaxation - *breathing deeply and sinking back comfortably with each breath*

2. Imaging stimulus (poem, music, description, script, etc.)

- *Picture the calm surface of the clear, clean pool of water. The day is warm and you dive in. The sound of the splash muffles as you submerge. Feel the water on your skin feeling totally cocooned in the silent warmth*
- *. . . talk through the chemical changes with the student being the particle. Return to the clear, calm surface before returning the focus to the classroom.*

3. Debriefing

- *relate the focused imaging to the chemical reaction that occurs.*

4. Application (student reflection)

- *equations and an analogy for the experience.*
- *Being a particle in an aqueous solution is like . . . because . . .*

EVALUATION

- *the students' ability to translate the experience into the concept being studied.*
- *further experiments in the lab.*

REFLECTION

- *what were the reactions of the students?*
- *any changes to be made in the script?*

MATERIALS

- *background music to play during script*
- *overheads for application section*

Thanks to Marc Danylchuk, Leoville School and Warren Wessel, Campbell Collegiate, Regina for "sparking" this idea.

Focused Imaging — LESSON PLAN SHEET

General

TOPIC

- *to prepare an exam (clean up, spelling of a word, etc.)*

OBJECTIVE

- *to mentally rehearse to develop confidence and a relaxed state*

PROCEDURE

1. Relaxation - *while sitting comfortably, relax legs, arms, stomach and neck by feeling them become heavy and warm*

2. Imaging stimulus (poem, music, description, script, etc.)

- *Picture a blank sheet of paper. You realize it is the back of your exam. You turn it over and begin reading over the questions. As you read, you picture pages from your notes and texts, lessons from class that will help you answer each question. You begin writing and drawing and before you know it, you have completed the exam to the best of your ability. You feel relaxed and pleased with your accomplishment as you read the exam over one more time. You make a few fine tuning changes and turn over the paper picturing the blank piece of paper once again.*

3. Debriefing

- *students share tips from the image that will assist them when writing the exam.*

4. Application (student reflection)

- *the exam!*

EVALUATION

- *the climate of the room during the exam.*
- *students' completed exams.*

REFLECTION

- *was the music helpful as a cue during the exam?*

MATERIALS

- *the exam*

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A softer, more gentle conclusion to our time travel from page 11 and 12.

We must be near the end of the time of giant mammals. Let's walk back a few more giant steps into the past on our timeline. Over there! That's a giant ground sloth! It looks about as big as an elephant. Notice its thick, reddish-brown hair and its long, thick claws. It uses these claws to grasp branches and pull down these to eat and strike at its enemies. It must weigh hundreds of kilograms. Let's make a sketch while we have a chance. He seems to be finished now, and is moving away. We, too, must be moving on. Back down our concrete timeline ...

Let's stop beside this pond. That is one huge beaver dam! Maybe if we wait quietly we'll see a giant beaver. (in a whisper) Do you have your camera or sketch pad ready? There it goes—up on the opposite shore! Look how large he is, and how thick his fur is. What large front teeth he is using to take down the tree. Notice his tail. . . . What do you think it would feel like? The marshy smell is quite strong here. Let's leave the pond and see what else we can discover back down our time path again.

Appendix C

Dawn horses! Tiny dawn horses, about 30 centimetres tall! With toes rather than hoofs. Off they go, galloping across the plain to the forested area. Let's follow ...

The sunshine is leaving speckly shadows on your jackets. It is cooler over here in the shade. Smell the moss and the ferns.

Well, it's time now to start our journey back up the time path. Make sure you have your camera or sketch pad and your pictures. We'll soon be back at the classroom. Just a few more giant steps. Look back at the long strip of empty sidewalk.

We're back safely with our recorded images. When you are ready, open your eyes and we'll discuss the things we saw and share our images.

Inspiration and Resource: The National Geographic Society. (1983). *Giants from the Past.* Washington, DC.

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